

METHOD AND APPARATUS FOR REDUCING POOL STARVATION
IN A SHARED MEMORY SWITCH

ABSTRACT OF THE DISCLOSURE

5 A switch includes a reserved pool of buffers in a shared memory. The reserved pool of buffers is reserved for exclusive use by an egress port. The switch includes pool select logic which selects a free buffer from the reserved pool for storing data received from an ingress port to be forwarded to the egress port. The shared memory also includes a shared pool of buffers. The shared pool of buffers is shared by a plurality of
10 egress ports. The pool select logic selects a free buffer in the shared pool upon detecting no free buffer in the reserved pool. The shared memory may also include a multicast pool of buffers. The multicast pool of buffers is shared by a plurality of egress ports. The pool select logic selects a free buffer in the multicast pool upon detecting an IP Multicast data packet received from an ingress port.

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